

Supplementary Table 1

This table contains RNA-seq results from the genetic rescue experiment. Only the genes that their expression is significantly different between the groups are presented.

Supplementary Table 2

This table contains RNA-seq results from the antisense oligonucleotides experiments. Only the genes that their expression is significantly different between the groups are presented.

Supplementary Video

Spontaneous seizure of *MECP2* duplication transgenic mouse

This video shows a spontaneous seizure from a 30-week old male *MECP2* duplication transgenic mouse during EEG recording.

Supplementary Figure 1

This figure contains the original uncropped western blots from Figure 1c,d. The black frames denote how the gels were cropped for the final figure.

Supplementary Figure 2

This figure contains the original uncropped western blots from Figure 3e,d. The black frames denote how the gels were cropped for the final figure.

Supplementary Figure 3

This figure contains the original uncropped western blots from Extended Data Figure 1b. The black frames denote how the gels were cropped for the final figure.

Supplementary Figure 4

This figure contains the original uncropped western blots from Extended Data Figure 5c,d. The black frames denote how the gels were cropped for the final figure.

